

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-163 (Canceled)

Claim 164 (New): A water-dispersible liquid vitamin animal food additive comprising:

- a) from 10% to 60% by weight of a vitamin component selected from the group consisting of:
 - (i) precursors of Vitamin A;
 - (ii) precursors of Vitamin E;
 - (iii) a mixture of precursors of Vitamin A and precursors of Vitamin E;
 - (iv) a mixture of precursors of Vitamin A and Vitamin D3;
 - (v) a mixture of precursors of Vitamin E and Vitamin D3; and
 - (vi) a mixture of precursors of Vitamin A, precursors of Vitamin E, and Vitamin D3;
 - b) from 2% to 15% by weight of a C4 to C6 alkyl lactate;
 - c) from 20% to 50% by weight of one or more veterinarily acceptable emulsifiers;
 - d) from 1% to 15% by weight of water; and
 - e) from 2% to 10% of an oil;
- wherein the flashpoint of the additive is about 200°F or greater.

Claim 165 (New): The additive of claim 164, wherein said additive further comprises from 1% to 15% by weight of a veterinarily acceptable stabilizer.

Claim 166 (New): The additive of claim 165, wherein the stabilizer is propylene glycol.

Claim 167 (New): The additive of claim 164, wherein the amount of the alkyl lactate is from 4% to 7%.

Claim 168 (New): The additive of claim 164, wherein the additive is free of a flammable alcohol.

Claim 169 (New): The additive of claim 164, wherein the ratio of b) to d) is from 1:5 to 10:1.

Claim 170 (New): The additive of claim 164, wherein the emulsifier is a non-ionic surfactant.

Claim 171 (New): The additive of claim 164, further comprising from 0.5% to 6% by weight of an antioxidant.

Claim 172 (New): The additive of claim 171, wherein the antioxidant is ethoxyquin, BHT or BHA.

Claim 173 (New): The additive of claim 172, wherein the antioxidant is ethoxyquin.

Claim 174 (New): The additive of claim 164, wherein the viscosity of the additive is from 1000 cP to 10000 cP at 0°C.

Claim 175 (New): The additive of claim 164, wherein the viscosity of the additive is from 100 cP to 2000 cP at 15°C.

Claim 176 (New): The additive of claim 164, wherein said additive disperses into water and forms a finely divided emulsion within 2 minutes when added at a ratio of additive to water of from 1 g/kg to 50 g/kg and stirred manually at a temperature of from 15°C to 25°C.

Claim 177 (New): The additive of claim 164, wherein the amount of water is from 1% to 5% by weight.

Claim 178 (New): The additive of claim 164, wherein component a) is precursors of Vitamin A.

Claim 179 (New): The additive of claim 164, wherein component a) is precursors of Vitamin E.

Claim 180 (New): The additive of claim 164, wherein component a) comprises a precursor of Vitamin A and Vitamin D3 and the weight/weight ratio of the precursor of Vitamin A to Vitamin D3 is from 100:1 to 40:1.

Claim 181 (New): The additive of claim 178, wherein the total amount of the precursors of Vitamin A in the additive is from 15 to 50% by weight.

Claim 182 (New): The additive of claim 179, wherein the total amount of the precursors of Vitamin E in the additive is from 10 to 60% by weight.

Claim 183 (New): The additive of claim 164, further comprising a fungicide.

Claim 184 (New): A water-dispersible liquid vitamin animal food additive comprising:

- a) from 1% to 6% by weight of Vitamin D3;
 - b) from 2% to 15% by weight of a C4 to C6 alkyl lactate;
 - c) from 20% to 50% by weight of one or more veterinarily acceptable emulsifiers;
 - d) from 1% to 15% by weight of water; and
 - e) from 5% to 30% by weight of an oil;
- wherein the flashpoint of the additive is about 200°F or greater.

Claim 185 (New): A water-dispersible liquid vitamin animal food additive comprising:

- a) from 10% to 60% by weight of a vitamin component selected from the group consisting of:
 - (i) a precursor of Vitamin A;
 - (ii) a precursor of Vitamin E;
 - (iii) a mixture of a precursor of Vitamin A and a precursor of Vitamin E;
 - (iv) a mixture of a precursor of Vitamin A and Vitamin D3;
 - (v) a mixture of a precursor of Vitamin E and Vitamin D3; and
 - (vi) a mixture of a precursor of Vitamin A, a precursor of Vitamin E, and Vitamin D3;

- b) from 2% to 15% by weight of a C4 to C6 alkyl lactate;
 - c) from 20% to 50% by weight of one or more veterinarily acceptable emulsifiers;
 - d) from 1% to 15% by weight of water; and
 - e) from 2% to 10% of an oil;
- wherein the flashpoint of the additive is about 200°F or greater.

Claim 186 (New): The additive of claim 164, wherein the precursors of Vitamin A is retinyl propionate.

Claim 187 (New): The additive of claim 185, wherein the precursor of Vitamin A is retinyl propionate.

Claim 188 (New): The additive of claim 164, wherein the precursors of Vitamin E is (dl) alpha tocopheryl acetate.

Claim 189 (New): The additive of claim 185, wherein the precursor of Vitamin E is (dl) alpha tocopheryl acetate.

Claim 190 (New): The additive of claim 164, wherein the vitamin component is a mixture of retinyl propionate and Vitamin D3.

Claim 191 (New): The additive of claim 185, wherein the vitamin component is a mixture of retinyl propionate and Vitamin D3.

Claim 192 (New): The additive of claim 164, wherein the vitamin component is a mixture of retinyl propionate, Vitamin D3 and (dl) alpha tocopheryl acetate.

Claim 193 (New): The additive of claim 185, wherein the vitamin component is a mixture of retinyl propionate, Vitamin D3 and (dl) alpha tocopheryl acetate.

Claim 194 (New): A water-dispersible liquid vitamin animal food additive comprising:

- a) from 10% to 60% by weight of a vitamin component selected from the group consisting of:

- (i) precursors of Vitamin A;
 - (ii) precursors of Vitamin E;
 - (iii) a mixture of precursors of Vitamin A and precursors of Vitamin E;
 - (iv) a mixture of precursors of Vitamin A and Vitamin D3;
 - (v) a mixture of precursors of Vitamin E and Vitamin D3; and
 - (vi) a mixture of precursors of Vitamin A, precursors of Vitamin E, and Vitamin D3;
- b) from 3% to 15% by weight of a C1 to C3 alkyl lactate;
 - c) from 20% to 50% by weight of one or more veterinarily acceptable emulsifiers;
 - d) from 3% to 15% by weight of water; and
 - e) from 2% to 10% of an oil;
- wherein the flashpoint of the additive is about 200°F or greater.

Claim 195 (New): The additive of claim 194, wherein said additive further comprises from 1% to 15% by weight of a veterinarily acceptable stabilizer.

Claim 196 (New): The additive of claim 195, wherein the stabilizer is propylene glycol.

Claim 197 (New): The additive of claim 194, wherein the amount of the C1-C3 alkyl lactate is from 3% to 12%.

Claim 198 (New): The additive of claim 194, wherein the additive is free of a mono-hydroxy alcohol.

Claim 199 (New): The additive of claim 194, wherein the ratio of b) to d) is from 1:5 to 4:1.

Claim 200 (New): The additive of claim 194, wherein the emulsifier is a non-ionic surfactant.

Claim 201 (New): The additive of claim 194, further comprising from 0.5% to 6% by weight of an antioxidant.

Claim 202 (New): The additive of claim 201, wherein the antioxidant is ethoxyquin, BHT or BHA.

Claim 203 (New): The additive of claim 201, wherein the antioxidant is ethoxyquin.

Claim 204 (New): The additive of claim 194, wherein the viscosity of the additive is from 1000 cP to 10000 cP at 0°C.

Claim 205 (New): The additive of claim 194, wherein the viscosity of the additive is from 100 cP to 2000 cP at 15°C.

Claim 206 (New): The additive of claim 194, wherein said additive disperses into water and forms a finely dispersed emulsion within 2 minutes when added at a ratio of additive to water of from 1 g/kg to 50 g/kg and stirred manually at a temperature of from 15°C to 25°C.

Claim 207 (New): The additive of claim 194, wherein the amount of water is from 3% to 6% by weight.

Claim 208 (New): The additive of claim 194, wherein component a) is precursors of Vitamin A.

Claim 209 (New): The additive of claim 194, wherein component a) is precursors of Vitamin E.

Claim 210 (New): The additive of claim 194, wherein component a) comprises a precursor of Vitamin A and Vitamin D3 and the weight/weight ratio of the precursor of Vitamin A to Vitamin D3 is from 100:1 to 40:1.

Claim 211 (New): The additive of claim 208, wherein the total amount of the precursors of Vitamin A in the additive is from 15 to 50% by weight.

Claim 212 (New): The additive of claim 209, wherein the total amount of the precursors of Vitamin E in the additive is from 10% to 30% by weight.

Claim 213 (New): The additive of claim 194, further comprising a fungicide.

Claim 214 (New): A water-dispersible liquid vitamin animal food additive comprising:

- a) from 1% to 6% by weight of Vitamin D3;
 - b) from 3% to 15% by weight of a C1 to C3 alkyl lactate;
 - c) from 20% to 50% by weight of one or more veterinarily acceptable emulsifiers;
 - d) from 1% to 15% by weight of water; and
 - e) from 5% to 30% by weight of an oil;
- wherein the flashpoint of the additive is about 200°F or greater.

Claim 215 (New): A water-dispersible liquid vitamin animal food additive comprising:

a) from 10% to 60% by weight of a vitamin component selected from the group consisting of:

- (i) a precursor of Vitamin A;
 - (ii) a precursor of Vitamin E;
 - (iii) a mixture of a precursor of Vitamin A and a precursor of Vitamin E;
 - (iv) a mixture of a precursor of Vitamin A and Vitamin D3;
 - (v) a mixture of a precursor of Vitamin E and Vitamin D3; and
 - (vi) a mixture of a precursor of Vitamin A, a precursor of Vitamin E, and Vitamin D3;
- b) from 3% to 15% by weight of a C1 to C3 alkyl lactate;
 - c) from 20% to 50% by weight of one or more veterinarily acceptable emulsifiers;
 - d) from 3% to 15% by weight of water; and
 - e) from 2% to 10% of an oil;
- wherein the flashpoint of the additive is about 200°F or greater.

Claim 216 (New): The additive of claim 215, wherein the precursor of Vitamin A is retinyl propionate.

Claim 217 (New): The additive of claim 215, wherein the precursor of Vitamin E is (dl) alpha tocopheryl acetate.

Claim 218 (New): The additive of claim 215, wherein the vitamin component is a mixture of retinyl propionate and Vitamin D3.

Claim 219 (New): The additive of claim 215, wherein the vitamin component is a mixture of retinyl propionate, Vitamin D3 and (dl) alpha tocopheryl acetate.